

Personal Information

Name: Wen Chen

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Date of Birth: Sept. 1989

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ResearchGate: <https://www.researchgate.net/profile/Wen-Chen-27>

Professional Appointment

July. 2022 — present

Lecturer (equivalent to Research Faculty with teaching duties in the U.S. system)
Medical School, Hunan University of Chinese Medicine, Changsha, China

Research Experience

My research focuses on using computational approaches to decipher the function of long non-coding RNAs in genetically influenced diseases, such as cardiovascular disease. In my previous work, by analyzing public RNA-Seq data, I did a comprehensive analysis and function annotation of zebrafish lncRNAs. My most recent work is "GCEN: an easy-to-use toolkit for Gene Co-Expression Network analysis and lncRNAs annotation". I am familiar with the sequencing data analysis, software and database development, machine learning, and so on.

Education

Sept. 2014 — June. 2022

Ph.D. in Biochemistry and Molecular Biology

School of Life Sciences, Hunan Normal University, Changsha, China

Advisor: Prof. Shuanglin Xiang

Thesis: Comprehensive analysis of zebrafish lncRNAs uncovers its roles in development

Feb. 2015 — Oct. 2018

Joint Student in Bioinformatics

Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Kunming, China

Supervisor: Prof. Changning Liu

Sept. 2007 — June. 2011

B.S. in Biology Science

School of Life Sciences, Hunan Normal University, Changsha, China

Industrial Experience

Apr. 2011 — Mar. 2012

Laboratory Technician

BGI-Wuhan, Wuhan, China

Grant Support

02. Investigating the Role and Mechanisms of lncRNAs in Atherosclerosis Using Zebrafish as a Model Organism. Hunan Provincial Natural Science Foundation of China; 2023JJ40472; 2023.01 — 2025.12.

01. The roles and mechanisms of ultra-conserved lncRNAs in zebrafish vascular development. Research Foundation of Education Bureau of Hunan Province, China; 22B0371; 2023.01 — 2025.12.

Featured Publications

03. **Wen Chen**, Jing Li, Shulan Huang, Xiaodeng Li, Xuan Zhan, Xiang Hu, Shuanglin Xiang*, Changning Liu*. GCEN: An Easy-to-Use Toolkit for Gene Co-Expression Network Analysis and lncRNAs Annotation. *Current Issues in Molecular Biology* 2022; 44(4): 1479-1487.

02. **Wen Chen**[#], Guoqiang Zhang[#], Jing Li[#], Xuan Zhang, Shulan Huang, Shuanglin Xiang, Xiang Hu*, Changning Liu*. CRISPRlnc: a manually curated database of validated sgRNAs for lncRNAs. *Nucleic Acids Research* 2019; 47(D1):D63-D68.

01. **Wen Chen**[#], Xuan Zhang[#], Jing Li[#], Shulan Huang, Shuanglin Xiang, Xiang Hu*, Changning Liu*. Comprehensive analysis of coding-lncRNA gene co-expression network uncovers conserved functional lncRNAs in zebrafish. *BMC Genomics* 2018; 19(Suppl 2):112.

[#] Co-first author, * Corresponding author.

Academic Activities

Journal Reviewer Bioinformatics, Scientific Reports, Frontiers in Genetics, International Journal of Molecular Sciences, *etc.*

Conference Oral Presentation “Comprehensive analysis of coding-lncRNA gene co-expression network uncovers conserved functional lncRNAs in zebrafish”, The Sixteenth Asia Pacific Bioinformatics Conference (APBC 2018), Yokohama, Japan, Jan. 2018

Full Publications

21. Qiwei Feng, Yi Che, Shuyin Yi, Ying Wang, **Wen Chen**^{*}, Xinbin Xia^{*}. Analysis of medical impoverishment and its influencing factors among China's rural near-poor, 2016-2020. *Frontiers in Public Health* 2024; 12:1412536.

20. Zitian Yang, Zexin Zhang, Jing Li, **Wen Chen**, Changning Liu*. CRISPRlnc: a machine learning method for lncRNA-specific single-guide RNA design of CRISPR/Cas9 system. *Briefings in Bioinformatics* 2024; 25(2):bbae066

19. Quanye Luo[#], Yu Wei[#], Xuzhen Lv, **Wen Chen**, Dongmei Yang^{*}, Qinhui Tuo^{*}. The Effect and Mechanism of Oleanolic Acid in the Treatment of Metabolic Syndrome and Related Cardiovascular Diseases. *Molecules* 2024; 29(4):758.

18. Bo Hu, **Wen Chen**, Yancheng Zhong^{*}, Qinhui Tuo^{*}. The role of lncRNA-mediated pyroptosis in cardiovascular diseases. *Frontiers in Cardiovascular Medicine* 2023; 10:1217985.

17. Jiazhi Liu, Yan Li, Jing Li, **Wen Chen**, Bangzhen Pan, Aizhong Liu, Zeng-Fu Xu, Wei Xu*, Changning Liu*. EupDB: An integrative and comprehensive functional genomics data hub for Euphorbiaceae plants. *Plant Communications* 2024; 5(1):100683.

16. Shulan Huang, Hongning Zhang, **Wen Chen**, Jiawei Wang, Zhen Wu, Meiqi He, Jian Zhang, Xiang Hu*, Shuanglin Xiang*. *Current Issues in Molecular Biology* 2023; 45(10), 8215-8226.

15. Minyu Zhou[#], Lian Xu[#], Dahua Xu[#], **Wen Chen**[#], Jehangir Khan, Yue Hu, Hui Huang, Hang Wei, Yiqing Zhang, Phiraphol Chusongsang, Kanthi Tanasarnprasert, Xiang Hu*, Yanin Limpanont*, Zhiyue Lv*. Chromosome-scale genome of the human blood fluke *Schistosoma mekongi* and its implications for public health. *Infectious Diseases of Poverty* 2023; 12:104.

14. Shulan Huang, Hongning Zhang, **Wen Chen**, Na Su, Changyue Yuan, Jian Zhang, Shuanglin Xiang*, Xiang Hu*. CRISPR/Cas9-Mediated Knockout of *tnfaip1* in Zebrafish Plays a Role in Early Development. *Genes* 2023; 14(5):1005.

13. **Wen Chen**, Jing Li, Shulan Huang, Xiaodeng Li, Xuan Zhan, Xiang Hu, Shuanglin Xiang*, Changning Liu*. GCEN: An Easy-to-Use Toolkit for Gene Co-Expression Network Analysis and lncRNAs Annotation. *Current Issues in Molecular Biology* 2022; 44(4): 1479-1487.
12. Shiye Sang, **Wen Chen**, Di Zhang, Xuan Zhan, Wenjing Yang, Changning Liu*. Data integration and evolutionary analysis of long non-coding RNAs in 25 flowering plants. *BMC Genomics* 2021; 22(Suppl 3):739.
11. Xuan Zhang, Jing Li, Bang-Zhen Pan, **Wen Chen**, Maosheng Chen, Mingyong Tang, Zeng-Fu Xu*, Changning Liu*. Extended mining of the oil biosynthesis pathway in biofuel plant *Jatropha curcas* by combined analysis of transcriptome and gene interactome data. *BMC Bioinformatics* 2021; 22(6): 409.
10. Xiaoyang Gao#, Xuan Zhang#, **Wen Chen**#, Jing Li, Wenjing Yang, Xingwang Zhang, Shengying Li, Changning Liu*. Transcriptome analysis of *Paris polyphylla* var. *yunnanensis* illuminates the biosynthesis and accumulation of steroidal saponins in rhizomes and leaves. *Phytochemistry* 2020; 178:112460.
09. Jun Wang#, Xuan Zhang#, **Wen Chen**#, Xiang Hu, Jing Li*, Changning Liu*. Regulatory roles of long non-coding RNAs implicated in cancer hallmarks. *International Journal of Cancer* 2020; 146(4):906-916.
08. Ye Xiao, Shulan Huang, Feng Qiu, Xiaofeng Ding, Yi Sun, Chenxi Wei, Xiang Hu, Ke Wei, Shengwen Long, Lina Xie, Yu Xun, **Wen Chen**, Zhijian Zhang, Ning Liu*, Shuanglin Xiang*. Tumor necrosis factor α -induced protein 1 as a novel tumor suppressor through selective downregulation of CSNK2B blocks nuclear factor- κ B activation in hepatocellular carcinoma. *EBioMedicine* 2020; 51:102603.
07. Xuan Zhang#, Bang-Zhen Pan#, Maosheng Chen, **Wen Chen**, Jing Li, Zeng-Fu Xu*, Changning Liu*. JCDB: a comprehensive knowledge base for *Jatropha curcas*, an emerging model for woody energy plants. *BMC Genomics* 2019; 20(Suppl 9):958.
06. **Wen Chen**#, Guoqiang Zhang#, Jing Li#, Xuan Zhang, Shulan Huang, Shuanglin Xiang, Xiang Hu*, Changning Liu*. CRISPRlnc: a manually curated database of validated sgRNAs for lncRNAs. *Nucleic Acids Research* 2019; 47(D1):D63-D68.
05. Xuan Zhang#, Jun Wang#, Jing Li#, **Wen Chen**, Changning Liu*. CRlncRC: a novel machine learning method for cancer-related long noncoding RNA identification based on integrated features. *BMC Medical Genomics* 2018; 11(Suppl 6):120.
04. Jun Wang#, Xuan Zhang#, **Wen Chen**#, Jing Li*, Changning Liu*. CRlncRNA: a manually curated database of cancer-related long non-coding RNAs with experimental proof of functions on clinicopathological and molecular features. *BMC Medical Genomics* 2018; 11(Suppl 6):114.
03. Xiang Hu#, **Wen Chen**#, Jing Li#, Shulan Huang, Xuling Xu, Xuan Zhang, Shuanglin Xiang*, Changning Liu*. ZFLNC: a comprehensive and well annotated database for zebrafish lncRNA. *Database* 2018; 2018: bay114.
02. **Wen Chen**#, Xuan Zhang#, Jing Li#, Shulan Huang, Shuanglin Xiang, Xiang Hu*, Changning Liu*. Comprehensive analysis of coding-lncRNA gene co-expression network uncovers conserved functional lncRNAs in zebrafish. *BMC Genomics* 2018; 19(Suppl 2):112.
01. Shang Wang#, **Wen Chen**#, Kai Zhang#, Peng Jiao, Lihua Mo, Xiaoxu Yang, Xiang Hu, Jian Zhang, Chenxi Wei*, Shuanglin Xiang*. Restriction-based Multiple-fragment Assembly Strategy to Avoid Random Mutation during Long cDNA Cloning. *Journal of Cancer* 2015; 6(7):632-635.

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